IN THE SPECIFICATION:

Please amend the specification as described below.

Amend paragraph [0031] as follows:

[0031] As illustrated in FIG. 2 above, in the asynchronous/synchronous LAN 200 of FIG. 2, the Sync Generator 230 is in communication with each of the Ethernet terminals 210.sub.1-210.sub.4. The Sync Generator 230 generates a recurring global timing schedule, referred to as a Sync Time Frame, for synchronizing the communication between the Ethernet terminals 210.sub.1-210.sub.4 of the asynchronous/synchronous LAN 200. The Sync Time Frame generated by the Sync Generator 230 is generated at regulated intervals and is a dynamic parameter whose total time duration (e.g., sync time) and interval time may be adjusted according to the latency desired in a specific network or system. The size of the Sync Time Frame may be predetermined by a user or may be dynamically set by the network manager ~~370~~ 235 according to the size of synchronous data that needs to be transmitted by each of the Ethernet terminals 210.sub.1-210.sub.4.

Amend paragraph [0032] as follows:

[0032] The initiation of the Sync Time Frame generated by the Sync Generator 230 causes the counters 370 of each of the network interface controllers 225.sub.1-225.sub.4 of the Ethernet terminals 210.sub.1-210.sub.4 to synchronize to a specific count (i.e., the counter ~~270~~ 370 of each of the terminals 210.sub.1-210.sub.4 are reset). The counters ~~270~~ 370 of each of the Ethernet terminals 210.sub.1-210.sub.4 then continue to count until a predetermined count number has been reached. A trigger is then generated by the Transmit Sync Generator 310 and the Receive Sync Generator 350 of an Ethernet terminal to cause specific synchronous data in the Transmit Data FIFO 320 to be transmitted from the Ethernet terminal and to cause a received data packet to be stored in an appropriate, respective location of the Receive Data FIFO 340 of the transmitting Ethernet terminal.

Amend paragraph [0033] as follows:

[0033] More specifically, FIG. 5 depicts a high level block diagram of an embodiment of the Transmit Sync Generator 310 (or the Receive Sync Generator 350) of the network interface controllers 225.sub.1-225.sub.4 of the Ethernet

terminals 210.sub.1-210.sub.4 and its interaction with the counter 370. Because the Transmit Sync Generators and the Receive Sync Generators of the present invention are substantially similar, the Transmit Sync Generator 310 of FIG. 5 should be considered representative of each of the Transmit Sync Generators and the Receive Sync Generators of the network interface controllers 225.sub.1-225.sub.4 of the Ethernet terminals 210.sub.1-210.sub.4. In FIG. 5, each of the four slots of the Transmit Sync Generator 310, slots 1-4, illustratively comprises a comparator 510.sub.1-510.sub.4 and a compare counter 520.sub.1-520.sub.4. When the value of the counter 370 matches the value of one of the compare counters 520.sub.1-520.sub.4, the Transmit Sync Generator 310 generates a trigger signal to cause synchronous data stored in a respective slot of the Transmit Data FIFO 320 to be transmitted by the Transmit MAC 325. For example, if the compare counter 520, of slot 1 comprises a count of eight (8), when the counter 370 reaches a count of 8, a trigger is generated by the Transmit Sync Generator 310 to cause synchronous data stored in the first slot, slot 1, of the Transmit Data FIFO 320 to be transmitted by the Transmit MAC 325 to an intended terminal. Similarly, if the compare counter 520.sub.2 of slot 2 comprises a count of sixteen (16), when the counter 370 reaches a count of 16, a trigger is generated by the Transmit Sync Generator 310 to cause synchronous data stored in slot 2 of the Transmit Data FIFO 320 to be transmitted by the Transmit MAC 325 to an intended terminal. The period of time between the trigger generated by the first slot, slot 1, of the Transmit Sync Generator 310 and the trigger generated by the second slot, slot 2, of the Transmit Sync Generator 310 comprises a first time slot in the Sync Time Frame generated by the Sync Generator 230. Likewise, the periods of time between the second and third trigger and the third and fourth trigger, comprise respective second and third time slots Sync Time Frame generated by the Sync Generator 230. Furthermore, the time allotted for the transmission of the synchronous data in the fourth slot, slot 4, (i.e., through the use of a trigger generated by a subsequent predetermined count number) of the Transmit Data FIFO 320, comprises a fourth time slot in the Sync Time Frame generated by the Sync Generator 230. Briefly stated, the size of the slots, slots 1-4,

for transmitting synchronous data is determined by the difference in the stored count numbers between successive compare counters 520.sub.1-520.sub.4 of the Transmit Sync Generator 310. The values in the compare counters 520.sub.1-520.sub.4 may be predetermined by a user or may be dynamically set by the network manager ~~370~~ 235 according to the size of synchronous data that needs to be transmitted by each of the Ethernet terminals 210.sub.1-210.sub.4. In addition, an additional period of time is allotted in the Sync Time Frame for the transmission of asynchronous data.

Amend paragraph [0036] as follows:

[0036] Furthermore, the generation of respective time slots by each of the Ethernet terminals 210.sub.1-210.sub.4 within a Sync Time Frame may be prioritized. More specifically, in an embodiment of the present invention, a particular Ethernet terminal may be given priority over other Ethernet terminals in the generation of a time slot within a Sync Time Frame within which to transmit and receive its synchronous data. For example, the first terminal 210.sub.1 may always have priority of transmission. That is, if the first terminal 210.sub.1 has any synchronous data to transmit during any of the time slots, the first terminal 210.sub.1 may be given priority to transmit its synchronous data within those time slots. In alternate embodiments of the present invention, priority may be assigned to a terminal that is to receive data. For example, if in a network it is imperative for the first terminal 210.sub.1 to receive synchronous data as soon as the synchronous data is available, then any terminal that receives synchronous data intended for the first terminal 210.sub.1 will be given priority of transmission within a time slot of the Sync Time Frame. In other embodiments of the present invention, specific types of synchronous data may be given priority of transmission. As such, when any terminal has such synchronous data to be transmitted, that terminal would be given priority of transmission within a time slot for transmission. It will be appreciated by those skilled in the art informed by the teachings of the present invention, that various forms of prioritization for the transmission and receiving of synchronous data may be implemented within the

concepts of the present invention. As such, the specific embodiments of the present invention described herein should not be treated as limiting the scope of the invention. Furthermore, the prioritization of communication between the terminals of an asynchronous/synchronous network in accordance with the present invention may be predetermined by a user or may be dynamically set by, for example, the network manager ~~370~~ 235 depending on the latency required by synchronous data awaiting to be transmitted. The priority of communication of the present invention is managed by, for example, the network manager ~~370~~ 235 such that the latency for any particular synchronous data packet does not exceed a maximum allowable latency time for the particular synchronous data awaiting transmission.